IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A multilevel wiring interconnect in an integrated circuit, comprising:

a number of multilayer metal lines connecting to a number of silicon devices in a substrate;

a low dielectric constant insulator in a number of interstices between the number of multilayer metal lines and the substrate;

wherein the low dielectric constant insulator includes a number of air gaps in the low dielectric constant material; and

wherein the low dielectric constant insulator includes a film in which of a set of methyl groups and a fluorine group of atoms are as much as 43% and 9% respectively of that for a content of silicon atoms in the film.

- 2. (Original) The multilevel wiring interconnect of claim 1, wherein the low dielectric constant insulator includes a low dielectric constant organic silica film.
- 3. (Original) The multilevel wiring interconnect of claim 1, wherein the low dielectric constant insulator includes a low dielectric constant insulator having a dielectric constant (k) of less than 2.7.
- 4. (Canceled).
- 5. (Original) The multilevel wiring interconnect of claim 1, wherein the number of multilayer metal lines includes a number of multilayer metal lines selected from the group consisting of Aluminum, Copper, Silver, and Gold.

- 6. (Original) The multilevel wiring interconnect of claim 1, wherein the number of multilayer metal lines includes a first conductor bridge level.
- 7. (Currently Amended) A multilevel wiring interconnect system, comprising:
 a number of multilayer metal lines connecting to a number of integrated circuit devices in
 a substrate;

a low dielectric constant insulator in a number of interstices between the number of multilayer metal lines and the substrate, the low dielectric constant insulator having a number of air gaps therein; and

wherein the low dielectric constant insulator includes a film in which of a set of methyl groups and a fluorine group of atoms are as much as 43% and 9% respectively of that for a content of silicon atoms in the film.

- 8. (Original) The system of claim 7, wherein the number of multilayer metal lines are adapted to connect to at least one of a processor and a memory.
- 9. (Original) The system of claim 7, wherein the substrate is a die.
- 10. (Original) The system of claim 7, wherein the substrate includes a silicon.
- 11. (Original) The system of claim 7, wherein the number of multilayer metal lines consist essentially of copper.
- 12. (Withdrawn) A system having a multilevel wiring interconnect, comprising: an integrated circuit device; and

an integrated memory circuit operably coupled to the integrated circuit device, wherein the integrated memory circuit includes a multilevel wiring interconnect, the multilevel wiring interconnect comprising:

a number of multilayer Copper lines connecting to one or more of the transistors in the substrate;

a low dielectric constant insulator in a number of interstices between the number of multilayer Copper lines and the substrate;

wherein the low dielectric constant insulator includes a number of air gaps in the low dielectric constant material; and

wherein the low dielectric constant insulator includes a film in which of a set of methyl groups and a fluorine group of atoms are as much as 43% and 9% respectively of that for a content of silicon atoms in the film.

- (Withdrawn) The system of claim 12, wherein the integrated circuit device includes a 13. processor.
- 14. (Withdrawn) A system, comprising:

a processor; and

an integrated memory circuit coupled to the processor, wherein the integrated memory circuit further includes a multilevel wiring interconnect, the multilevel wiring interconnect comprising:

a number of multilayer Copper lines connecting to one or more of the transistors in the substrate;

a low dielectric constant insulator in a number of interstices between the number of multilayer Copper lines and the substrate;

wherein the low dielectric constant insulator includes a number of air gaps in the low dielectric constant material; and

wherein the low dielectric constant insulator includes a film in which of a set of methyl groups and a fluorine group of atoms are as much as 43% and 9% respectively of that for a content of silicon atoms in the film.

15. (Withdrawn) The system of claim 14, wherein the low dielectric constant insulator includes a low dielectric constant organic silica film.

Serial Number: 10/786,354

Filing Date: February 25, 2004
Title: MULTILEVEL COPPER INTERCONNECTS WITH LOW-K DIELECTRICS AND AIR GAPS

(Withdrawn) The system of claim 14, wherein the low dielectric constant insulator 16. includes a low dielectric constant insulator having a dielectric constant of less than 2.7.

(Canceled). 17.